Ford Ringwood

Data Review

RINGWOOD, NEW JERSEY

Volatile Analysis

SDG #JB90525

Analyses Performed By:
Accutest Laboratories
Dayton, New Jersey

Report #23362R
Review Level: Tier III
Project: NJ000604.2014.00021

SUMMARY

This data quality assessment summarizes the review of Sample Delivery Group (SDG) #JB90525 for samples collected in association with the Ford Ringwood site. The review was conducted as a Tier III evaluation and included review of data package completeness. Only analytical data associated with constituents of concern were reviewed for this validation. Field documentation was not included in this review. Included with this assessment are the validation annotated sample result sheets, and chain of custody. Analyses were performed on the following samples:

Sample ID	Lab ID	Matrix	Sample Collection Date	Parent Sample	Analysis				
					VOC	SVOC	PEST/ PCB	MET	MISC
OB-20A (031915)	JB90525-1	Water	03/19/2015		X				
OB-20B (031915)	JB90525-2	Water	03/19/2015		X				
RW-6 (031915)	JB90525-3	Water	03/19/2015		X				
RW-6A (031915)	JB90525-4	Water	03/19/2015		X				
SC-1 (031915)	JB90525-5	Water	03/19/2015		X				
DUP (031915)	JB90525-6	Water	03/19/2015		X				
FB (031915)	JB90525-7	Water	03/19/2015		X				
TB (031815)	JB90525-8	Water	03/18/2015		X				
OB-11R (032015)	JB90525-9	Water	03/20/2015		X				
OB-27 (032015)	JB90525-10	Water	03/20/2015		X				
FB (032015)	JB90525-11	Water	03/20/2015		X				

Note:

1. Sample TB (031815) collected on 3/18/2015 was inadvertently logged-in as “TB (031915)” with a collection date of 3/20/15; and, sample locations OB-11R (032015) and FB(032015) were both logged-in as OB-11R (03**19**15) and FB(03**19**15), respectively.

ANALYTICAL DATA PACKAGE DOCUMENTATION

The table below is the evaluation of the data package completeness.

Items Reviewed	Reported		Performance Acceptable		Not Required
	No	Yes	No	Yes	
1. Sample receipt condition		X		X	
2. Requested analyses and sample results		X		X	
3. Master tracking list		X		X	
4. Methods of analysis		X		X	
5. Reporting limits		X		X	
6. Sample collection date		X		X	
7. Laboratory sample received date		X		X	
8. Sample preservation verification (as applicable)		X		X	
9. Sample preparation/extraction/analysis dates		X		X	
10. Fully executed Chain-of-Custody (COC) form		X		X	
11. Narrative summary of QA or sample problems provided		X		X	
12. Data Package Completeness and Compliance		X		X	

QA - Quality Assurance

ORGANIC ANALYSIS INTRODUCTION

Analyses were performed according to United States Environmental Protection Agency (USEPA) SW-846 Method 8260B. Data were reviewed in accordance with USEPA National Functional Guidelines of October 1999 and State of New Jersey, Department of Environmental Protection "Standard Operating Procedure (SOP) for the Quality Assurance Data Validation of Analytical Deliverables – TCL – Organics (based on the USEPA SOW OLMO4.2 with Revisions)" SOP No.: BEMQA 5.A.13 (October 2001, Revision No. 3).

The data review process is an evaluation of data on a technical basis rather than a determination of contract compliance. As such, the standards against which the data are being weighed may differ from those specified in the analytical method. It is assumed that the data package represents the best efforts of the laboratory and had already been subjected to adequate and sufficient quality review prior to submission.

During the review process, laboratory qualified and unqualified data are verified against the supporting documentation. Based on this evaluation, qualifier codes may be added, deleted, or modified by the data reviewer. Results are qualified with the following codes in accordance with USEPA National Functional Guidelines:

- Concentration (C) Qualifiers

  U The compound was analyzed for but not detected. The associated value is the compound quantitation limit.

  B The compound has been found in the sample as well as its associated blank, its presence in the sample may be suspect.

- Quantitation (Q) Qualifiers

  E The compound was quantitated above the calibration range.

  D Concentration is based on a diluted sample analysis.

- Validation Qualifiers

  J The compound was positively identified; however, the associated numerical value is an estimated concentration only.

  UJ The compound was not detected above the reported sample quantitation limit. However, the reported limit is approximate and may or may not represent the actual limit of quantitation.

  JN The analysis indicates the presence of a compound for which there is presumptive evidence to make a tentative identification. The associated numerical value is an estimated concentration only.

  UB Compound considered non-detect at the listed value due to associated blank contamination.

  N The analysis indicates the presence of a compound for which there is presumptive evidence to make a tentative identification.

  R The sample results are rejected.

Two facts should be noted by all data users. First, the "R" flag means that the associated value is unusable. In other words, due to significant quality control (QC) problems, the analysis is invalid and provides no information as to whether the compound is present or not. "R" values should not appear on

data tables because they cannot be relied upon, even as a last resort. The second fact to keep in mind is that no compound concentration, even if it has passed all QC tests, is guaranteed to be accurate. Strict QC serves to increase confidence in data but any value potentially contains error.

VOLATILE ORGANIC COMPOUND (VOC) ANALYSES

1. Holding Times

The specified holding times for the following methods are presented in the following table.

Method	Matrix	Holding Time	Preservation
SW-846 8260B	Water	14 days from collection to analysis	Cool to <6°C; preserved to a pH of less than 2 s.u.

s.u. Standard units

All samples were analyzed within the specified holding time criteria.

2. Blank Contamination

Quality assurance (QA) blanks (i.e., method and rinse blanks) are prepared to identify any contamination which may have been introduced into the samples during sample preparation or field activity. Method blanks measure laboratory contamination. Rinse blanks measure contamination of samples during field operations.

A blank action level (BAL) of five times the concentration of a detected compound in an associated blank (common laboratory contaminant compounds are calculated at ten times) is calculated for QA blanks containing concentrations greater than the method detection limit (MDL). The BAL is compared to the associated sample results to determine the appropriate qualification of the sample results, if needed.

Compounds were not detected above the MDL in the associated blanks; therefore detected sample results were not associated with blank contamination.

3. Mass Spectrometer Tuning

Mass spectrometer performance was acceptable and all analyses were performed within a 12-hour tune clock.

System performance and column resolution were acceptable.

4. Calibration

Satisfactory instrument calibration is established to insure that the instrument is capable of producing acceptable quantitative data. An initial calibration demonstrates that the instrument is capable of acceptable performance at the beginning of an experimental sequence. The continuing calibration verifies that the instrument daily performance is satisfactory.

4.1 Initial Calibration

The method specifies percent relative standard deviation (%RSD) and relative response factor (RRF) limits for select compounds only. A technical review of the data applies limits to all compounds with no exceptions.

All target compounds associated with the initial calibration standards must exhibit a %RSD less than the control limit (20.5%) or a correlation coefficient greater than 0.99 and an RRF value greater than control limit (0.05).

4.2 Continuing Calibration

All target compounds associated with the continuing calibration standard must exhibit a percent difference (%D) less than the control limit (25%) and RRF value greater than control limit (0.05).

All compounds associated with the calibrations were within the specified control limits, with the exception of the compounds presented in the following table.

Sample Locations	Initial/Continuing	Compound	Criteria
OB-20B (031915) DUP (031915)	CCV %D	Bromomethane	+26.2%

The criteria used to evaluate the initial and continuing calibration are presented in the following table. In the case of a calibration deviation, the sample results are qualified.

Initial/Continuing	Criteria	Sample Result	Qualification
Initial and Continuing Calibration	RRF <0.05	Non-detect	R
		Detect	J
	RRF <0.01[1]	Non-detect	R
		Detect	J
	RRF >0.05 or RRF >0.01[1]	Non-detect	No Action
		Detect	
Initial Calibration	%RSD > 20.5% or a correlation coefficient <0.99	Non-detect	UJ
		Detect	J
	%RSD >90%	Non-detect	R
		Detect	J
Continuing Calibration	%D >25% (increase in sensitivity)	Non-detect	No Action
		Detect	J
	%D >25% (decrease in sensitivity)	Non-detect	UJ
		Detect	J
	%D >90% (increase/decrease in sensitivity)	Non-detect	R
		Detect	J

[1] RRF of 0.01 only applies to compounds which are typically poor responding compounds (i.e., ketones, 1,4-dioxane, etc.)

5. Surrogates/System Monitoring Compounds

All samples to be analyzed for organic compounds are spiked with surrogate compounds prior to sample preparation to evaluate overall laboratory performance and efficiency of the analytical technique. VOC analysis requires that all surrogates associated with the analysis exhibit recoveries within the laboratory-established acceptance limits.

All surrogate recoveries were within control limits.

6. Internal Standard Performance

Internal standard performance criteria insure that the GC/MS sensitivity and response are stable during every sample analysis. The criteria requires the internal standard compounds associated with the VOC exhibit area counts that are not greater than two times (+100%) or less than one-half (-50%) of the area counts of the associated continuing calibration standard.

All internal standard responses were within control limits.

7. Matrix Spike/Matrix Spike Duplicate (MS/MSD) Analysis

MS/MSD data are used to assess the precision and accuracy of the analytical method. The compounds used to perform the MS/MSD analysis must exhibit a percent recovery within the laboratory-established acceptance limits. The relative percent difference (RPD) between the MS/MSD recoveries must exhibit an RPD within the laboratory-established acceptance limits.

Note: The MS/MSD recovery control limits do not apply for MS/MSD performed on sample locations where the compound concentration detected in the parent sample exceeds the MS/MSD concentration by a factor of four or greater.

Sample locations associated with the MS exhibiting recoveries outside of the control limits are presented in the following table.

Sample Locations	Compound	MS Recovery
OB-20B (031915)	Bromomethane	>UL

The criteria used to evaluate the MS/MSD recoveries are presented in the following table. In the case of an MS/MSD deviation, the sample results are qualified as documented in the table below.

Control Limit	Sample Result	Qualification
> the upper control limit (UL)	Non-detect	No Action
	Detect	J
< the lower control limit (LL) but > 10%	Non-detect	UJ
	Detect	J
< 10%	Non-detect	R
	Detect	J
Parent sample concentration > four times the MS/MSD spiking solution concentration.	Detect	No Action
	Non-detect	

8. Laboratory Control Sample (LCS) Analysis

The LCS analysis is used to assess the accuracy of the analytical method independent of matrix interferences. The compounds associated with the LCS analysis must exhibit a percent recovery within the laboratory-established acceptance limits.

Sample locations associated with LCS analysis exhibiting recoveries outside of the control limits presented in the following table.

Sample Locations	Compound	LCS Recovery
OB-20A (031915)	1,3-Dichlorobenzene	>UL

The criteria used to evaluate the LCS/LCSD recoveries are presented in the following table. In the case of an LCS/LCSD deviation, the sample results are qualified as documented in the table below.

Control Limit	Sample Result	Qualification
> the upper control limit (UL)	Non-detect	No Action
	Detect	J
< the lower control limit (LL) but > 10%	Non-detect	UJ
	Detect	J
< 10%	Non-detect	R
	Detect	J

9. Field Duplicate Analysis

Field duplicate analysis is used to assess the overall precision of the field sampling procedures and analytical method. A control limit of 30% for water matrices is applied to the RPD between the parent sample and the field duplicate. In the instance when the parent and/or duplicate sample concentrations are less than or equal to 5 times the RL, a control limit of two times the RL is applied for water matrices.

Results for duplicate samples are summarized in the following table.

Sample ID/Duplicate ID	Compound	Sample Result	Duplicate Result	RPD
OB-20B (031915)/ DUP (031915)	Benzene	0.46 J	0.44 J	AC
	Chloroethane	3.6	3.6	
	Cyclohexane	0.85 J	0.93 J	
	Methylcyclohexane	0.62 J	0.69 J	

AC Acceptable

The calculated RPDs between the parent sample and field duplicate were acceptable.

10. Compound Identification

Compounds are identified on the GC/MS by using the analytes relative retention time and ion spectra.

All identified compounds met the specified criteria.

Tentatively identified compounds (TICs) were identified in the sample locations: OB-20B (031915), RW-6A (031915), DUP (031915), OB-11R (032015) and OB-27 (032015). The analysis indicates the presence of a compound for which there is presumptive evidence to make a tentative identification. TICs are qualified as

estimated (JN).

11. System Performance and Overall Assessment

Overall system performance was acceptable. Other than for those deviations specifically mentioned in this review, the overall data quality is within the guidelines specified in the method.

DATA VALIDATION CHECKLIST FOR VOCs

VOCs: SW-846 8260B	Reported		Performance Acceptable		Not Required
	No	Yes	No	Yes	
GAS CHROMATOGRAPHY/MASS SPECTROMETRY (GC/MS)					
Tier II Validation					
Holding times		X		X	
Reporting limits (units)		X		X	
Blanks					
A. Method blanks		X		X	
B. Equipment blanks		X		X	
C. Trip blanks		X		X	
Laboratory Control Sample (LCS)		X	X		
Laboratory Control Sample Duplicate(LCSD)					X
LCS/LCSD Precision (RPD)					X
Matrix Spike (MS)		X	X		
Matrix Spike Duplicate(MSD)					X
MS/MSD Precision (RPD)					X
Field/Lab Duplicate (RPD)		X		X	
Surrogate Spike Recoveries		X		X	
Dilution Factor		X		X	
Moisture Content					X
Tier III Validation					
System performance and column resolution		X		X	
Initial calibration %RSDs		X		X	
Initial/Continuing calibration RRFs		X		X	
Continuing calibration %Ds		X	X		
Instrument tune and performance check		X		X	
Ion abundance criteria for each instrument used		X		X	
Internal standard		X		X	
Compound identification and quantitation					
A. Reconstructed ion chromatograms		X		X	
B. Quantitation Reports		X		X	
C. RT of sample compounds within the established RT windows		X		X	
D. Transcription/calculation errors present		X		X	
E. Reporting limits adjusted to reflect sample dilutions		X		X	

%RSD Relative standard deviation
%R Percent recovery
RPD Relative percent difference
%D Percent difference

VALIDATION PERFORMED BY: Lisa Horton

SIGNATURE: 

DATE: April 3, 2015

PEER REVIEW: Todd Church

DATE: April 3, 2015

CHAIN OF CUSTODY/
CORRECTED SAMPLE ANALYSIS DATA SHEETS

ACCUTEST LABORATORIES

GW
FB
WTB

CHAIN OF CUSTODY

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www.accutest.com

FED-EX Tracking #
Bottle Order Control #
Accutest Quote #
Accutest Job # JB90525

Client / Reporting Information

Company Name: ARCADIS
Street Address: 17-17 Route 208 North
City: Fair Lawn State: NJ Zip: 07410
Project Contact: Jeremy Cuccuini E-mail: Jeremy.Cuccuini@arcadis-us.com
Phone #: 201-797-7400 Fax #:
Sampler(s) Name(s): Dana Drew and Paul Krupin Phone #:

Project Information

Project Name: Ford Ringwood
Street: Peters Mine Road
City: Ringwood, NJ State:
Project #: NJ000604.2014
Client Purchase Order #:
Project Manager: Mike Kleczkowski

Billing Information (If different from Report to)

Company Name:
Street Address:
City State Zip:
Attention:

Requested Analysis (see TEST CODE sheet)

Matrix Codes

DW - Drinking Water
GW - Ground Water
WW - Water
SW - Surface Water
SO - Soil
SL - Sludge
SED-Sediment
OI - Oil
LIQ - Other Liquid
AIR - Air
SOL - Other Solid
WP - Wipe
FB-Field Blank
EB-Equipment Blank
RB- Rinse Blank
TB-Trip Blank

Accutest Sample #	Field ID / Point of Collection	MEOH/DI Vial #	Collection Date	Collection Time	Sampled by	Matrix	# of bottles	Number of preserved Bottles: HCl	NaOH	HNO3	H2SO4	NONE	DI Water	MEOH	ENCORE	VOCs	LAB USE ONLY
1	OB-20A (031915)		3/19/15	1102	DD	GW	3	3								X	V425
2	OB-20B (031915)			1045	PK	GW	3	3								X	
3	RW-6 (031915)			1210	PK	GW	3	3								X	
4	RW-6A (031915)			1247	DD	GW	3	3								X	
5	SC-1 (031915)			1400	PK	GW	3	3								X	
6	DUP (031915)			—	—	GW	3	3								X	
7	FB (031915)			1500	DD	DI	2	2								X	
8	TB (031815)		3/18/15	0600	—	DI	2	2								X	
9	OB-11R (032015)		3/20/15	1012	DD	GW	3	3								X	
10	OB-2			1020	PK	GW	3	3								X	
11	FB (032015)			1100	DD	DI	2	2								X	

Turnaround Time (Business days)

- [X] Std. 10 Business Days
- [ ] 5 Day RUSH
- [ ] 3 Day RUSH
- [ ] 2 Day RUSH
- [ ] 1 Day RUSH
- [ ] other

Approved By (Accutest PM): / Date:

Emergency & Rush T/A data available VIA Lablink

Data Deliverable Information

- [ ] Commercial "A" (Level 1)
- [ ] Commercial "B" (Level 2)
- [ ] FULLT1 (Level 3+4)
- [ ] NJ Reduced
- [ ] Commercial "C"
- [ ] NJ Data of Known Quality Protocol Reporting
- [ ] NYASP Category A
- [ ] NYASP Category B
- [ ] State Forms
- [X] EDD Format
- [ ] Other

Commercial "A" = Results Only, Commercial "B" = Results + QC Summary
NJ Reduced = Results + QC Summary + Partial Raw data

Comments / Special Instructions

INITIAL ASESSMENT 2 WK
LABEL VERIFICATION NL

Sample Custody must be documented below each time samples change possession, including courier delivery.

	Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
1	Dana Drew	3/20/15 1105	1 Temp 3-20-15	2 Temp 3-20-15	1825	2
3			3	4		4
5			5	Custody Seal # 426	Intact / Not intact	Preserved where applicable: On Ice / Cooler Temp 1.7

JB90525: Chain of Custody
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Accutest Laboratories

Report of Analysis

Client Sample ID:	OB-20A (031915)		
Lab Sample ID:	JB90525-1	**Date Sampled:**	03/19/15
Matrix:	AQ - Ground Water	**Date Received:**	03/20/15
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Ringwood, NJ		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	U193616.D	1	03/26/15	NH	n/a	n/a	VU8940
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List (OLM4.2)

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	2.6	ug/l	
71-43-2	Benzene	ND	0.50	0.21	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.28	ug/l	
75-25-2	Bromoform	ND	1.0	0.31	ug/l	
74-83-9	Bromomethane	ND	2.0	0.39	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	2.5	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.50	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.24	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.27	ug/l	
75-00-3	Chloroethane	ND	1.0	0.56	ug/l	
67-66-3	Chloroform	ND	1.0	0.20	ug/l	
74-87-3	Chloromethane	ND	1.0	0.33	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.37	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	1.2	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.25	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.23	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.16	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.26	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.24	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.73	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.35	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.30	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.50	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.33	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.43	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.28	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.32	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.40	ug/l	
76-13-1	Freon 113	ND	5.0	0.45	ug/l	
591-78-6	2-Hexanone	ND	5.0	1.7	ug/l	
98-82-8	Isopropylbenzene	0.30	1.0	0.26	ug/l	J

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	OB-20A (031915)		
Lab Sample ID:	JB90525-1	**Date Sampled:**	03/19/15
Matrix:	AQ - Ground Water	**Date Received:**	03/20/15
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Ringwood, NJ		

VOA TCL List (OLM4.2)

CAS No.	Compound	Result	RL	MDL	Units	Q
79-20-9	Methyl Acetate	ND	5.0	3.1	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.22	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.26	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.1	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.81	ug/l	
100-42-5	Styrene	ND	1.0	0.26	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.39	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.35	ug/l	
108-88-3	Toluene	ND	1.0	0.22	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.22	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.32	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.28	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.25	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.28	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.17	ug/l	
1330-20-7	Xylene (total)	0.47	1.0	0.20	ug/l	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	91%		76-122%
17060-07-0	1,2-Dichloroethane-D4	84%		71-124%
2037-26-5	Toluene-D8	101%		78-121%
460-00-4	4-Bromofluorobenzene	104%		77-120%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	
	Total Alkanes		0	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	OB-20B (031915)		
Lab Sample ID:	JB90525-2	**Date Sampled:**	03/19/15
Matrix:	AQ - Ground Water	**Date Received:**	03/20/15
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Ringwood, NJ		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	U193567.D	1	03/25/15	NH	n/a	n/a	VU8936
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List (OLM4.2)

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	2.6	ug/l	
71-43-2	Benzene	0.46	0.50	0.21	ug/l	J
75-27-4	Bromodichloromethane	ND	1.0	0.28	ug/l	
75-25-2	Bromoform	ND	1.0	0.31	ug/l	
74-83-9	Bromomethane	ND	2.0	0.39	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	2.5	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.50	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.24	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.27	ug/l	
75-00-3	Chloroethane	3.6	1.0	0.56	ug/l	
67-66-3	Chloroform	ND	1.0	0.20	ug/l	
74-87-3	Chloromethane	ND	1.0	0.33	ug/l	
110-82-7	Cyclohexane	0.85	5.0	0.37	ug/l	J
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	1.2	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.25	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.23	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.16	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.26	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.24	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.73	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.35	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.30	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.50	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.33	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.43	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.28	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.32	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.40	ug/l	
76-13-1	Freon 113	ND	5.0	0.45	ug/l	
591-78-6	2-Hexanone	ND	5.0	1.7	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.26	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	OB-20B (031915)		
Lab Sample ID:	JB90525-2	**Date Sampled:**	03/19/15
Matrix:	AQ - Ground Water	**Date Received:**	03/20/15
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Ringwood, NJ		

VOA TCL List (OLM4.2)

CAS No.	Compound	Result	RL	MDL	Units	Q
79-20-9	Methyl Acetate	ND	5.0	3.1	ug/l	
108-87-2	Methylcyclohexane	0.62	5.0	0.22	ug/l	J
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.26	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.1	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.81	ug/l	
100-42-5	Styrene	ND	1.0	0.26	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.39	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.35	ug/l	
108-88-3	Toluene	ND	1.0	0.22	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.22	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.32	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.28	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.25	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.28	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.17	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.20	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	100%		76-122%
17060-07-0	1,2-Dichloroethane-D4	91%		71-124%
2037-26-5	Toluene-D8	108%		78-121%
460-00-4	4-Bromofluorobenzene	110%		77-120%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
496-11-7	Indane	17.20	5.9	ug/l	JN
	Total TIC, Volatile		5.9	ug/l	J N
	Total Alkanes		0	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

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Report of Analysis

Client Sample ID:	RW-6 (031915)		
Lab Sample ID:	JB90525-3	**Date Sampled:**	03/19/15
Matrix:	AQ - Ground Water	**Date Received:**	03/20/15
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Ringwood, NJ		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	U193595.D	2	03/26/15	NH	n/a	n/a	VU8937
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List (OLM4.2)

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	20	5.3	ug/l	
71-43-2	Benzene	344	1.0	0.42	ug/l	
75-27-4	Bromodichloromethane	ND	2.0	0.56	ug/l	
75-25-2	Bromoform	ND	2.0	0.62	ug/l	
74-83-9	Bromomethane	ND	4.0	0.77	ug/l	
78-93-3	2-Butanone (MEK)	ND	20	5.0	ug/l	
75-15-0	Carbon disulfide	ND	4.0	0.99	ug/l	
56-23-5	Carbon tetrachloride	ND	2.0	0.47	ug/l	
108-90-7	Chlorobenzene	ND	2.0	0.54	ug/l	
75-00-3	Chloroethane	ND	2.0	1.1	ug/l	
67-66-3	Chloroform	ND	2.0	0.41	ug/l	
74-87-3	Chloromethane	ND	2.0	0.66	ug/l	
110-82-7	Cyclohexane	ND	10	0.74	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	4.0	2.3	ug/l	
124-48-1	Dibromochloromethane	ND	2.0	0.50	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	0.45	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	2.0	0.32	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	2.0	0.51	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	2.0	0.47	ug/l	
75-71-8	Dichlorodifluoromethane	ND	4.0	1.5	ug/l	
75-34-3	1,1-Dichloroethane	ND	2.0	0.70	ug/l	
107-06-2	1,2-Dichloroethane	ND	2.0	0.60	ug/l	
75-35-4	1,1-Dichloroethene	ND	2.0	0.99	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	2.0	0.65	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	2.0	1.0	ug/l	
78-87-5	1,2-Dichloropropane	ND	2.0	0.87	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	2.0	0.57	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	2.0	0.63	ug/l	
100-41-4	Ethylbenzene	ND	2.0	0.79	ug/l	
76-13-1	Freon 113	ND	10	0.89	ug/l	
591-78-6	2-Hexanone	ND	10	3.5	ug/l	
98-82-8	Isopropylbenzene	ND	2.0	0.51	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	RW-6 (031915)		
Lab Sample ID:	JB90525-3	**Date Sampled:**	03/19/15
Matrix:	AQ - Ground Water	**Date Received:**	03/20/15
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Ringwood, NJ		

VOA TCL List (OLM4.2)

CAS No.	Compound	Result	RL	MDL	Units	Q
79-20-9	Methyl Acetate	ND	10	6.2	ug/l	
108-87-2	Methylcyclohexane	ND	10	0.43	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	2.0	0.53	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	10	2.1	ug/l	
75-09-2	Methylene chloride	ND	4.0	1.6	ug/l	
100-42-5	Styrene	ND	2.0	0.51	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.0	0.79	ug/l	
127-18-4	Tetrachloroethene	ND	2.0	0.70	ug/l	
108-88-3	Toluene	ND	2.0	0.44	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	2.0	0.45	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	2.0	0.64	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	2.0	0.55	ug/l	
79-01-6	Trichloroethene	ND	2.0	0.50	ug/l	
75-69-4	Trichlorofluoromethane	ND	4.0	0.56	ug/l	
75-01-4	Vinyl chloride	ND	2.0	0.35	ug/l	
1330-20-7	Xylene (total)	ND	2.0	0.40	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	101%		76-122%
17060-07-0	1,2-Dichloroethane-D4	91%		71-124%
2037-26-5	Toluene-D8	108%		78-121%
460-00-4	4-Bromofluorobenzene	110%		77-120%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	
	Total Alkanes		0	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

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Report of Analysis

Client Sample ID:	RW-6A (031915)		
Lab Sample ID:	JB90525-4	**Date Sampled:**	03/19/15
Matrix:	AQ - Ground Water	**Date Received:**	03/20/15
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Ringwood, NJ		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	U193591.D	1	03/26/15	NH	n/a	n/a	VU8937
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List (OLM4.2)

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	2.6	ug/l	
71-43-2	Benzene	13.3	0.50	0.21	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.28	ug/l	
75-25-2	Bromoform	ND	1.0	0.31	ug/l	
74-83-9	Bromomethane	ND	2.0	0.39	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	2.5	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.50	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.24	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.27	ug/l	
75-00-3	Chloroethane	2.9	1.0	0.56	ug/l	
67-66-3	Chloroform	ND	1.0	0.20	ug/l	
74-87-3	Chloromethane	ND	1.0	0.33	ug/l	
110-82-7	Cyclohexane	4.7	5.0	0.37	ug/l	J
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	1.2	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.25	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.23	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.16	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.26	ug/l	
106-46-7	1,4-Dichlorobenzene	0.32	1.0	0.24	ug/l	J
75-71-8	Dichlorodifluoromethane	ND	2.0	0.73	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.35	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.30	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.50	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.33	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.43	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.28	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.32	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.40	ug/l	
76-13-1	Freon 113	ND	5.0	0.45	ug/l	
591-78-6	2-Hexanone	ND	5.0	1.7	ug/l	
98-82-8	Isopropylbenzene	9.6	1.0	0.26	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	RW-6A (031915)		
Lab Sample ID:	JB90525-4	**Date Sampled:**	03/19/15
Matrix:	AQ - Ground Water	**Date Received:**	03/20/15
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Ringwood, NJ		

VOA TCL List (OLM4.2)

CAS No.	Compound	Result	RL	MDL	Units	Q
79-20-9	Methyl Acetate	ND	5.0	3.1	ug/l	
108-87-2	Methylcyclohexane	1.5	5.0	0.22	ug/l	J
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.26	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.1	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.81	ug/l	
100-42-5	Styrene	ND	1.0	0.26	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.39	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.35	ug/l	
108-88-3	Toluene	ND	1.0	0.22	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.22	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.32	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.28	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.25	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.28	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.17	ug/l	
1330-20-7	Xylene (total)	101	1.0	0.20	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	102%		76-122%
17060-07-0	1,2-Dichloroethane-D4	93%		71-124%
2037-26-5	Toluene-D8	108%		78-121%
460-00-4	4-Bromofluorobenzene	108%		77-120%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
96-37-7	Cyclopentane, methyl-	9.44	19	ug/l	JN
103-65-1	Benzene, propyl-	15.82	7.5	ug/l	JN
	C3 alkyl benzene	15.98	6.9	ug/l	J N
496-11-7	Indane	17.20	17	ug/l	JN
	C4 alkyl benzene	17.58	13	ug/l	J N
	C4 alkyl benzene	18.03	12	ug/l	J N
	C4 alkyl benzene	18.09	7.8	ug/l	J N
	1H-Indene-dihydro-methyl- isomer	18.46	5.8	ug/l	J N
	C4 alkyl benzene	18.60	7.8	ug/l	J N
	1H-Indene-dihydro-methyl- isomer	18.66	9.1	ug/l	J N
91-20-3	Naphthalene	19.49	8.7	ug/l	JN
	Total TIC, Volatile		114.6	ug/l	J N
	Total Alkanes		0	ug/l	

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B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	SC-1 (031915)		
Lab Sample ID:	JB90525-5	**Date Sampled:**	03/19/15
Matrix:	AQ - Ground Water	**Date Received:**	03/20/15
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Ringwood, NJ		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	U193590.D	1	03/26/15	NH	n/a	n/a	VU8937
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List (OLM4.2)

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	2.6	ug/l	
71-43-2	Benzene	150	0.50	0.21	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.28	ug/l	
75-25-2	Bromoform	ND	1.0	0.31	ug/l	
74-83-9	Bromomethane	ND	2.0	0.39	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	2.5	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.50	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.24	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.27	ug/l	
75-00-3	Chloroethane	ND	1.0	0.56	ug/l	
67-66-3	Chloroform	ND	1.0	0.20	ug/l	
74-87-3	Chloromethane	ND	1.0	0.33	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.37	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	1.2	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.25	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.23	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.16	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.26	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.24	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.73	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.35	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.30	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.50	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.33	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.43	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.28	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.32	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.40	ug/l	
76-13-1	Freon 113	ND	5.0	0.45	ug/l	
591-78-6	2-Hexanone	ND	5.0	1.7	ug/l	
98-82-8	Isopropylbenzene	0.51	1.0	0.26	ug/l	J

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SC-1 (031915)		
Lab Sample ID:	JB90525-5	**Date Sampled:**	03/19/15
Matrix:	AQ - Ground Water	**Date Received:**	03/20/15
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Ringwood, NJ		

VOA TCL List (OLM4.2)

CAS No.	Compound	Result	RL	MDL	Units	Q
79-20-9	Methyl Acetate	ND	5.0	3.1	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.22	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.26	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.1	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.81	ug/l	
100-42-5	Styrene	ND	1.0	0.26	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.39	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.35	ug/l	
108-88-3	Toluene	ND	1.0	0.22	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.22	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.32	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.28	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.25	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.28	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.17	ug/l	
1330-20-7	Xylene (total)	0.72	1.0	0.20	ug/l	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	101%		76-122%
17060-07-0	1,2-Dichloroethane-D4	92%		71-124%
2037-26-5	Toluene-D8	108%		78-121%
460-00-4	4-Bromofluorobenzene	110%		77-120%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	
	Total Alkanes		0	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	DUP (031915)		
Lab Sample ID:	JB90525-6	**Date Sampled:**	03/19/15
Matrix:	AQ - Ground Water	**Date Received:**	03/20/15
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Ringwood, NJ		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	U193569.D	1	03/25/15	NH	n/a	n/a	VU8936
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List (OLM4.2)

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	2.6	ug/l	
71-43-2	Benzene	0.44	0.50	0.21	ug/l	J
75-27-4	Bromodichloromethane	ND	1.0	0.28	ug/l	
75-25-2	Bromoform	ND	1.0	0.31	ug/l	
74-83-9	Bromomethane	ND	2.0	0.39	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	2.5	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.50	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.24	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.27	ug/l	
75-00-3	Chloroethane	3.6	1.0	0.56	ug/l	
67-66-3	Chloroform	ND	1.0	0.20	ug/l	
74-87-3	Chloromethane	ND	1.0	0.33	ug/l	
110-82-7	Cyclohexane	0.93	5.0	0.37	ug/l	J
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	1.2	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.25	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.23	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.16	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.26	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.24	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.73	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.35	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.30	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.50	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.33	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.43	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.28	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.32	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.40	ug/l	
76-13-1	Freon 113	ND	5.0	0.45	ug/l	
591-78-6	2-Hexanone	ND	5.0	1.7	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.26	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: DUP (031915)
Lab Sample ID: JB90525-6
Matrix: AQ - Ground Water
Method: SW846 8260B
Project: Ringwood, NJ

Date Sampled: 03/19/15
Date Received: 03/20/15
Percent Solids: n/a

VOA TCL List (OLM4.2)

CAS No.	Compound	Result	RL	MDL	Units	Q
79-20-9	Methyl Acetate	ND	5.0	3.1	ug/l	
108-87-2	Methylcyclohexane	0.69	5.0	0.22	ug/l	J
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.26	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.1	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.81	ug/l	
100-42-5	Styrene	ND	1.0	0.26	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.39	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.35	ug/l	
108-88-3	Toluene	ND	1.0	0.22	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.22	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.32	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.28	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.25	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.28	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.17	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.20	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	99%		76-122%
17060-07-0	1,2-Dichloroethane-D4	90%		71-124%
2037-26-5	Toluene-D8	107%		78-121%
460-00-4	4-Bromofluorobenzene	110%		77-120%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
496-11-7	Indane	17.20	6	ug/l	JN
	Total TIC, Volatile		6	ug/l	J N
	Total Alkanes		0	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

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Report of Analysis

Client Sample ID:	FB (031915)		
Lab Sample ID:	JB90525-7	**Date Sampled:**	03/19/15
Matrix:	AQ - Field Blank Water	**Date Received:**	03/20/15
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Ringwood, NJ		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	U193588.D	1	03/26/15	NH	n/a	n/a	VU8937
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List (OLM4.2)

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	2.6	ug/l	
71-43-2	Benzene	ND	0.50	0.21	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.28	ug/l	
75-25-2	Bromoform	ND	1.0	0.31	ug/l	
74-83-9	Bromomethane	ND	2.0	0.39	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	2.5	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.50	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.24	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.27	ug/l	
75-00-3	Chloroethane	ND	1.0	0.56	ug/l	
67-66-3	Chloroform	ND	1.0	0.20	ug/l	
74-87-3	Chloromethane	ND	1.0	0.33	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.37	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	1.2	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.25	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.23	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.16	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.26	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.24	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.73	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.35	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.30	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.50	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.33	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.43	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.28	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.32	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.40	ug/l	
76-13-1	Freon 113	ND	5.0	0.45	ug/l	
591-78-6	2-Hexanone	ND	5.0	1.7	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.26	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	FB (031915)		
Lab Sample ID:	JB90525-7	**Date Sampled:**	03/19/15
Matrix:	AQ - Field Blank Water	**Date Received:**	03/20/15
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Ringwood, NJ		

VOA TCL List (OLM4.2)

CAS No.	Compound	Result	RL	MDL	Units	Q
79-20-9	Methyl Acetate	ND	5.0	3.1	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.22	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.26	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.1	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.81	ug/l	
100-42-5	Styrene	ND	1.0	0.26	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.39	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.35	ug/l	
108-88-3	Toluene	ND	1.0	0.22	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.22	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.32	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.28	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.25	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.28	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.17	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.20	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	102%		76-122%
17060-07-0	1,2-Dichloroethane-D4	93%		71-124%
2037-26-5	Toluene-D8	108%		78-121%
460-00-4	4-Bromofluorobenzene	110%		77-120%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	
	Total Alkanes		0	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

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Report of Analysis

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Client Sample ID:	TB (031915)		
Lab Sample ID:	JB90525-8	**Date Sampled:**	03/18/15 ~~03/20/15~~
Matrix:	AQ - Trip Blank Water	**Date Received:**	03/20/15
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Ringwood, NJ		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	U193589.D	1	03/26/15	NH	n/a	n/a	VU8937
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List (OLM4.2)

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	2.6	ug/l	
71-43-2	Benzene	ND	0.50	0.21	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.28	ug/l	
75-25-2	Bromoform	ND	1.0	0.31	ug/l	
74-83-9	Bromomethane	ND	2.0	0.39	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	2.5	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.50	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.24	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.27	ug/l	
75-00-3	Chloroethane	ND	1.0	0.56	ug/l	
67-66-3	Chloroform	ND	1.0	0.20	ug/l	
74-87-3	Chloromethane	ND	1.0	0.33	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.37	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	1.2	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.25	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.23	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.16	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.26	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.24	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.73	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.35	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.30	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.50	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.33	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.43	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.28	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.32	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.40	ug/l	
76-13-1	Freon 113	ND	5.0	0.45	ug/l	
591-78-6	2-Hexanone	ND	5.0	1.7	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.26	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TB (031915)		
Lab Sample ID:	JB90525-8	**Date Sampled:**	03/18/15
Matrix:	AQ - Trip Blank Water	**Date Received:**	03/20/15
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Ringwood, NJ		

VOA TCL List (OLM4.2)

CAS No.	Compound	Result	RL	MDL	Units	Q
79-20-9	Methyl Acetate	ND	5.0	3.1	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.22	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.26	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.1	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.81	ug/l	
100-42-5	Styrene	ND	1.0	0.26	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.39	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.35	ug/l	
108-88-3	Toluene	ND	1.0	0.22	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.22	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.32	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.28	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.25	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.28	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.17	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.20	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	102%		76-122%
17060-07-0	1,2-Dichloroethane-D4	92%		71-124%
2037-26-5	Toluene-D8	109%		78-121%
460-00-4	4-Bromofluorobenzene	109%		77-120%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	
	Total Alkanes		0	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

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Report of Analysis

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Client Sample ID: OB-11R (031915)
Lab Sample ID: JB90525-9
Matrix: AQ - Ground Water
Method: SW846 8260B
Project: Ringwood, NJ

Date Sampled: 03/20/15
Date Received: 03/20/15
Percent Solids: n/a

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	U193592.D	1	03/26/15	NH	n/a	n/a	VU8937
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List (OLM4.2)

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	2.6	ug/l	
71-43-2	Benzene	3.2	0.50	0.21	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.28	ug/l	
75-25-2	Bromoform	ND	1.0	0.31	ug/l	
74-83-9	Bromomethane	ND	2.0	0.39	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	2.5	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.50	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.24	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.27	ug/l	
75-00-3	Chloroethane	24.3	1.0	0.56	ug/l	
67-66-3	Chloroform	ND	1.0	0.20	ug/l	
74-87-3	Chloromethane	ND	1.0	0.33	ug/l	
110-82-7	Cyclohexane	2.2	5.0	0.37	ug/l	J
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	1.2	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.25	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.23	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.16	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.26	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.24	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.73	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.35	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.30	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.50	ug/l	
156-59-2	cis-1,2-Dichloroethene	0.45	1.0	0.33	ug/l	J
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.43	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.28	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.32	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.40	ug/l	
76-13-1	Freon 113	ND	5.0	0.45	ug/l	
591-78-6	2-Hexanone	ND	5.0	1.7	ug/l	
98-82-8	Isopropylbenzene	0.78	1.0	0.26	ug/l	J

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

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Client Sample ID: OB-11R (031915)
Lab Sample ID: JB90525-9
Matrix: AQ - Ground Water
Method: SW846 8260B
Project: Ringwood, NJ

Date Sampled: 03/20/15
Date Received: 03/20/15
Percent Solids: n/a

VOA TCL List (OLM4.2)

CAS No.	Compound	Result	RL	MDL	Units	Q
79-20-9	Methyl Acetate	ND	5.0	3.1	ug/l	
108-87-2	Methylcyclohexane	0.63	5.0	0.22	ug/l	J
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.26	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.1	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.81	ug/l	
100-42-5	Styrene	ND	1.0	0.26	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.39	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.35	ug/l	
108-88-3	Toluene	ND	1.0	0.22	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.22	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.32	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.28	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.25	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.28	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.17	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.20	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	101%		76-122%
17060-07-0	1,2-Dichloroethane-D4	91%		71-124%
2037-26-5	Toluene-D8	108%		78-121%
460-00-4	4-Bromofluorobenzene	108%		77-120%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
96-37-7	Cyclopentane, methyl-	9.44	6.1	ug/l	JN
	C4 alkyl benzene	18.03	5.4	ug/l	J N
	1H-Indene-dihydro-methyl- isomer	18.66	7.2	ug/l	J N
	1H-indene-dihydro-dimethyl- isomer	19.18	6.4	ug/l	J N
	Total TIC, Volatile		25.1	ug/l	J N
	Total Alkanes		0	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	OB-27(032015)		
Lab Sample ID:	JB90525-10	**Date Sampled:**	03/20/15
Matrix:	AQ - Ground Water	**Date Received:**	03/20/15
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Ringwood, NJ		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	U193593.D	1	03/26/15	NH	n/a	n/a	VU8937
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List (OLM4.2)

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	2.6	ug/l	
71-43-2	Benzene	2.8	0.50	0.21	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.28	ug/l	
75-25-2	Bromoform	ND	1.0	0.31	ug/l	
74-83-9	Bromomethane	ND	2.0	0.39	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	2.5	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.50	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.24	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.27	ug/l	
75-00-3	Chloroethane	76.7	1.0	0.56	ug/l	
67-66-3	Chloroform	ND	1.0	0.20	ug/l	
74-87-3	Chloromethane	ND	1.0	0.33	ug/l	
110-82-7	Cyclohexane	1.2	5.0	0.37	ug/l	J
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	1.2	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.25	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.23	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.16	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.26	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.24	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.73	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.35	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.30	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.50	ug/l	
156-59-2	cis-1,2-Dichloroethene	0.35	1.0	0.33	ug/l	J
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.43	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.28	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.32	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.40	ug/l	
76-13-1	Freon 113	ND	5.0	0.45	ug/l	
591-78-6	2-Hexanone	ND	5.0	1.7	ug/l	
98-82-8	Isopropylbenzene	2.7	1.0	0.26	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	OB-27(032015)		
Lab Sample ID:	JB90525-10	**Date Sampled:**	03/20/15
Matrix:	AQ - Ground Water	**Date Received:**	03/20/15
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Ringwood, NJ		

VOA TCL List (OLM4.2)

CAS No.	Compound	Result	RL	MDL	Units	Q
79-20-9	Methyl Acetate	ND	5.0	3.1	ug/l	
108-87-2	Methylcyclohexane	0.82	5.0	0.22	ug/l	J
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.26	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.1	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.81	ug/l	
100-42-5	Styrene	ND	1.0	0.26	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.39	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.35	ug/l	
108-88-3	Toluene	ND	1.0	0.22	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.22	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.32	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.28	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.25	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.28	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.17	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.20	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	101%		76-122%
17060-07-0	1,2-Dichloroethane-D4	91%		71-124%
2037-26-5	Toluene-D8	108%		78-121%
460-00-4	4-Bromofluorobenzene	108%		77-120%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
496-11-7	Indane	17.20	10	ug/l	JN
	C4 alkyl benzene	17.58	7.4	ug/l	J N
	1H-Indene-dihydro-methyl- isomer	17.80	5.3	ug/l	J N
	C4 alkyl benzene	18.03	11	ug/l	JN
	1H-Indene-dihydro-methyl- isomer	18.46	5.3	ug/l	J N
	C4 alkyl benzene	18.60	9.4	ug/l	J N
	1H-Indene-dihydro-methyl- isomer	18.66	12	ug/l	J N
	1H-indene-dihydro-dimethyl- isomer	18.96	9.3	ug/l	J N
	1H-indene-dihydro-dimethyl- isomer	19.18	9.9	ug/l	J N
91-20-3	Naphthalene	19.49	5.6	ug/l	JN
	unknown	19.65	5.3	ug/l	J N
	Naphthalene, methyl- isomer	21.13	5.6	ug/l	J N
	Total TIC, Volatile		96.1	ug/l	J N
	Total Alkanes		0	ug/l	

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RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

20

Client Sample ID: FB (031915)
Lab Sample ID: JB90525-11
Matrix: AQ - Field Blank Water
Method: SW846 8260B
Project: Ringwood, NJ

Date Sampled: 03/20/15
Date Received: 03/20/15
Percent Solids: n/a

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	U193594.D	1	03/26/15	NH	n/a	n/a	VU8937
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List (OLM4.2)

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	2.6	ug/l	
71-43-2	Benzene	ND	0.50	0.21	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.28	ug/l	
75-25-2	Bromoform	ND	1.0	0.31	ug/l	
74-83-9	Bromomethane	ND	2.0	0.39	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	2.5	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.50	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.24	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.27	ug/l	
75-00-3	Chloroethane	ND	1.0	0.56	ug/l	
67-66-3	Chloroform	ND	1.0	0.20	ug/l	
74-87-3	Chloromethane	ND	1.0	0.33	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.37	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	1.2	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.25	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.23	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.16	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.26	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.24	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.73	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.35	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.30	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.50	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.33	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.43	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.28	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.32	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.40	ug/l	
76-13-1	Freon 113	ND	5.0	0.45	ug/l	
591-78-6	2-Hexanone	ND	5.0	1.7	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.26	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

20

Client Sample ID: FB (031915)
Lab Sample ID: JB90525-11
Matrix: AQ - Field Blank Water
Method: SW846 8260B
Project: Ringwood, NJ

Date Sampled: 03/20/15
Date Received: 03/20/15
Percent Solids: n/a

VOA TCL List (OLM4.2)

CAS No.	Compound	Result	RL	MDL	Units	Q
79-20-9	Methyl Acetate	ND	5.0	3.1	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.22	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.26	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.1	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.81	ug/l	
100-42-5	Styrene	ND	1.0	0.26	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.39	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.35	ug/l	
108-88-3	Toluene	ND	1.0	0.22	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.22	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.32	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.28	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.25	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.28	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.17	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.20	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	101%		76-122%
17060-07-0	1,2-Dichloroethane-D4	91%		71-124%
2037-26-5	Toluene-D8	108%		78-121%
460-00-4	4-Bromofluorobenzene	111%		77-120%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	
	Total Alkanes		0	ug/l	

ND = Not detected MDL = Method Detection Limit
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E = Indicates value exceeds calibration range
J = Indicates an estimated value
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N = Indicates presumptive evidence of a compound